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Date of Deposit: May 31, 2002



Attorney Docket No. 23905-029

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: Soutar and McGrath
SERIAL NUMBER: 10/099,936 EXAMINER: Not Yet Assigned
FILING DATE: March 13, 2002 ART UNIT: 1762
FOR: PRINTED CIRCUIT BOARD MANUFACTURE

May 31, 2002
Boston, Massachusetts

BOX IDS
Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

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Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby make of record the documents listed on the attached modified Form PTO-1449, as well as copies of the listed documents.

This Information Disclosure Statement is being filed before the mailing date of a First Office Action on the merits in the above-identified case. Accordingly, no fee or certification is believed required.

A copy of each of the references in the above-identified application is enclosed unless otherwise indicated on the attached modified Form PTO-1449. It is respectfully requested that the Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims, and signs the enclosed form PTO-1449 to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application.

By submitting this Information Disclosure Statement, the Applicants make no representation that: (1) a search has been performed, of the extent of any search performed, or that more relevant information does not exist; (2) the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b); and (3) the

APPLICANTS:
U.S.S.N.:

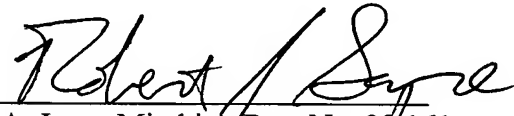
Soutar and McGrath
10/099,936

information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

Notwithstanding any statements by the Applicants, the Examiner is urged to form his/her own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

Please charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 23905-029.

Respectfully submitted,



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Dated: May 31, 2002

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PTO/SB (12-97)
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Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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|--|-------------------------------|------------------|
| Modified Form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | Application Number | 10/099,936 |
| | Filing Date | March 13, 2002 |
| | First Named Inventor | Soutar |
| | Group Art Unit | 1762 |
| | Examiner Name | Not Yet Assigned |
| | Attorney Docket Number | 23905-029 |

| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|----------|--------------------------|------------|-------------------------------------|-------|-----------|----------------------------|
| Exam Initials | Cite No. | U.S. Patent Document No. | Issue Date | Name of Patentee(s) or Applicant(s) | Class | Sub Class | Filing Date If Appropriate |
| | A1* | 3,294,578 | 12/27/66 | Popeck | | | |
| | A2* | 4,777,078 | 10/11/88 | Mivabavashi | | | |
| | A3* | 4,908,241 | 03/13/90 | Quast, et al. | | | |
| | A4* | 5,348,590 | 09/20/94 | Shigemura, et al. | | | |
| | A5* | 3,993,845 | 11/23/76 | Greenberg, et al. | | | |
| | A6* | 4,067,784 | 01/10/78 | Leahy, et al. | | | |
| | A7* | 5,322,553 | 06/21/94 | Mandich, et al. | | | |
| | A8** | 6,200,451 | 03/13/01 | MacDermid | | | 02/17/99 |
| | A9** | 5,733,599 | 03/31/98 | Ferrier, et al. | | | 03/22/96 |

| FOREIGN PATENT DOCUMENTS | | | | | | |
|--------------------------|----------|---------------------------------------|-------------------------------------|---------------------|--------------------|--|
| Exam Initials | Cite No. | Foreign Patent Document Office Number | Name of Patentee(s) or Applicant(s) | Date of Publication | Translation Yes No | |
| | B1* | JP 5127819 | Yutaka Oshida, et al. | 03/09/1976 | | |
| | B2* | JP 4110474 | Haruhisa Ishigaki | 04/10/1992 | | |
| | B3* | WO 94/26954 | Stein, et al. | 11/24/1994 | | |
| | B4* | EP 0 081 183 | Weickmann, et al. | 11/30/1982 | | |
| | B5* | GB 2 201 163 | McCallum | 08/24/1988 | | |
| | B6* | DE 4316679 C1 | Atotech Deutschland GmbH | 07/28/1994 | | |

| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS | | |
|---|----------|--|
| Exam Initials | Cite No. | Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc. |
| | C1* | Russev, et al. (1983). "Immersion Silvering of Copper" 1252 <i>Metal Finishing</i> 81(1): 27-30. |
| | C2* | Geld (1960). "Finishing Pointers: Silver Plating of Electrical Contacts by Immersion." <i>Metal Finishing</i> pg. 53 (August). |
| | C3* | Lowenheim (1963). <i>Modern Electroplating</i> pgs. 337 and 608-611. (London: John Wiley & Sons). |

* a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. 08/567,885, filed December 8, 1995, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

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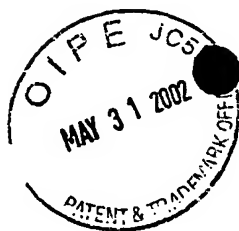
** a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. 08/939,656, filed September 29, 1997, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

| | | | |
|-----------------------|--|--------------------|--|
| Examiner Signature | | Date Considered | |
|-----------------------|--|--------------------|--|

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Form PTO-850 (Rev. 11-28-2000)

INTERFERENCE INITIAL MEMORANDUMCount # I

To the Board of Patent Appeals and Interferences:

An interference is proposed involving the following parties—

| | | | | |
|---|---|--------------------------------------|--|--|
| PARTY Soutar | APPLICATION NO. 10/099,936 | FILING DATE March 12, 2002 | PATENT NO., IF ANY | ISSUE DATE, IF ANY |
| If the involved case is a patent, have its maintenance fees been paid? Yes <input type="checkbox"/> No <input type="checkbox"/> Not due yet <input type="checkbox"/> | | | | |
| Proposed priority benefit (list all intervening applications necessary for continuity): | | | | |
| COUNTRY | APPLICATION NO. | FILING DATE | PATENT NO., IF ANY | ISSUE DATE, IF ANY |
| USA | 08/939,656 | Sept. 29, 1997 | | |
| USA | 08/567,885 | Dec 8, 1995 | | |
| | | | | |
| The claim(s) of this party corresponding to this count: | | | | |
| PATENTED OR PATENTABLE PENDING CLAIMS 18-23, 27-30 [assuming patentability] | | | UNPATENTABLE PENDING CLAIMS | |
| The claim(s) of this party NOT corresponding to this count: | | | | |
| PATENTED OR PATENTABLE PENDING CLAIMS 24-26, 31 [assuming patentability] | | | UNPATENTABLE PENDING CLAIMS | |
| PARTY Redline | APPLICATION NO. 09/251,641 | FILING DATE Feb. 17, 1999 | PATENT NO., IF ANY 6,200,451 | ISSUE DATE, IF ANY Mar. 13, 2001 |
| If the involved case is a patent, have its maintenance fees been paid? Yes <input type="checkbox"/> No <input type="checkbox"/> Not due yet <input checked="" type="checkbox"/> | | | | |
| Proposed priority benefit (list all intervening applications necessary for continuity): | | | | |
| COUNTRY | APPLICATION NO. | FILING DATE | PATENT NO., IF ANY | ISSUE DATE, IF ANY |
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| The claim(s) of this party corresponding to this count: | | | | |
| PATENTED OR PATENTABLE PENDING CLAIMS 1-8 | | | UNPATENTABLE PENDING CLAIMS | |
| The claim(s) of this party NOT corresponding to this count: | | | | |
| PATENTED OR PATENTABLE PENDING CLAIMS 9-12 | | | UNPATENTABLE PENDING CLAIMS | |
| (Check off each step, if applicable) INSTRUCTIONS | | | | |
| <input type="checkbox"/> 1. Obtain all files listed above. | | | | |
| <input type="checkbox"/> 2. Confirm that the proposed involved claims are still active and all corrections and entered amendments have been considered. The patents must not be expired for, among other things, failure to pay a maintenance fee (Check PALM screen 2970). | | | | |
| <input type="checkbox"/> 3. If one of the involved files is a published application or a patent, check for compliance with 35 U.S.C. 135(b). | | | | |
| <input type="checkbox"/> 4. Obtain a certified copy of any foreign benefit documents where necessary (37 CFR 1.55(a)). | | | | |
| <input type="checkbox"/> 5. Discuss the proposed interference with an Interference Practice Specialist in your Technology Center. | | | | |
| DATE | PRIMARY EXAMINER (signature) | | ART UNIT | TELEPHONE NO. |
| DATE | INTERFERENCE PRACTICE SPECIALIST or TECHNOLOGY CENTER DIRECTOR (signature) | | | TELEPHONE NO. |

Page ____ of ____

Count I

A process for improving the solderability of a metal surface, said process comprising:

- a). contacting the metal surface with an immersion silver plating solution thereby producing an immersion silver plate upon the metal surface, and
- b). treating the metal surface with a solution comprising an additive that substantially prevents silver migration by providing a barrier to moisture.

INTERFERENCE INITIAL MEMORANDUM

Count # II

To the Board of Patent Appeals and Interferences:

An interference is proposed involving the following parties—

| | | | | |
|--|--|--------------------------------------|--|--|
| PARTY Soutar | APPLICATION NO. 10/099,936 | FILING DATE March 13, 2002 | PATENT NO., IF ANY | ISSUE DATE, IF ANY |
| If the involved case is a patent, have its maintenance fees been paid? Yes <input type="checkbox"/> No <input type="checkbox"/> Not due yet <input type="checkbox"/> | | | | |
| Proposed priority benefit (list all intervening applications necessary for continuity): | | | | |
| COUNTRY | APPLICATION NO. | FILING DATE | PATENT NO., IF ANY | ISSUE DATE, IF ANY |
| USA | 08/939,656 | Sept. 29, 1997 | | |
| USA | 08/567,885 | Dec. 8, 1995 | | |
| | | | | |
| The claim(s) of this party corresponding to this count: | | | | |
| PATENTED OR PATENTABLE PENDING CLAIMS 24-26, 31 [assuming patentability] | | | UNPATENTABLE PENDING CLAIMS | |
| The claim(s) of this party NOT corresponding to this count: | | | | |
| PATENTED OR PATENTABLE PENDING CLAIMS 18-23, 27-30 [assuming patentability] | | | UNPATENTABLE PENDING CLAIMS | |
| PARTY Redline | APPLICATION NO. 09/251,641 | FILING DATE Feb. 17, 1999 | PATENT NO., IF ANY 6,200,451 | ISSUE DATE, IF ANY Mar. 13, 2001 |
| If the involved case is a patent, have its maintenance fees been paid? Yes <input type="checkbox"/> No <input type="checkbox"/> Not due yet <input checked="" type="checkbox"/> | | | | |
| Proposed priority benefit (list all intervening applications necessary for continuity): | | | | |
| COUNTRY | APPLICATION NO. | FILING DATE | PATENT NO., IF ANY | ISSUE DATE, IF ANY |
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| The claim(s) of this party corresponding to this count: | | | | |
| PATENTED OR PATENTABLE PENDING CLAIMS 9-12 | | | UNPATENTABLE PENDING CLAIMS | |
| The claim(s) of this party NOT corresponding to this count: | | | | |
| PATENTED OR PATENTABLE PENDING CLAIMS 1-8 | | | UNPATENTABLE PENDING CLAIMS | |
| (Check off each step, if applicable) INSTRUCTIONS | | | | |
| <input type="checkbox"/> 1. Obtain all files listed above. <input type="checkbox"/> 2. Confirm that the proposed involved claims are still active and all corrections and entered amendments have been considered. The patents must not be expired for, among other things, failure to pay a maintenance fee (Check PALM screen 2970). <input type="checkbox"/> 3. If one of the involved files is a published application or a patent, check for compliance with 35 U.S.C. 135(b). <input type="checkbox"/> 4. Obtain a certified copy of any foreign benefit documents where necessary (37 CFR 1.55(a)). <input type="checkbox"/> 5. Discuss the proposed interference with an Interference Practice Specialist in your Technology Center. | | | | |
| DATE | PRIMARY EXAMINER (signature) | | ART UNIT | TELEPHONE NO. |
| DATE | INTERFERENCE PRACTICE SPECIALIST or TECHNOLOGY CENTER DIRECTOR (signature) | | | TELEPHONE NO. |

Count II

An immersion silver plating solution comprising (i) a soluble source of silver ions, (ii) an acid and (iii) an additive that substantially prevents silver migration by providing a barrier to moisture.